

**MADHUPUR NEPALI FOREST (JFMC)
DIBRUGARH DIVISION, DIBRUGARH**

**MICRO-PLAN
(2016-17 to 2025-26)**

**Prepared by
Madhupur Nepali Joint Forest Management Committee**

**Assisted by
Assam Forest Department
&
COMPELO
(IIE & RGVN)**

June 2017

Approved
[Signature]
**DIVISIONAL FOREST OFFICER
DIBRUGARH DIVISION**

List of Acronyms

Acronym	Full Form
APFBC	Assam Project on Forest and Biodiversity Conservation
AFD	<i>Agence France de Développement</i>
BPL	Below Poverty Line
COMPELO	Consortium for Micro Planning and Enhancing Livelihood Opportunities
CML	Centre for Microfinance and Livelihood
EPA	Entry Point Activities
GIS	Geographical Information System
Ha	Hectare
IIE	Indian Institute of Entrepreneurship
JFMC	Joint Forest Management Committee
Kg	Kilogram
Km	Kilometer
MT	Metric Ton
NGO	Non-Governmental Organization
NTFP	Non Timber Forest Product
NWFP	Non Wood Forest Product
PDS	Public Distribution System
PRA	Participatory Rural Appraisal
RGVN	Rashtriya Gramin Vikas Nidhi
Rs.	Indian Rupees
SHG	Self Help Group
VCDC	Village Council Development Committee

**MADHUPUR NEPALI FOREST JOINT FOREST MANAGEMENT COMMITTEE
DIBRUGARH Forest Division**

**Micro-Plan for 10 Years
[Livelihood Development Plan & Forest Development Plan]**

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1. Introduction	
About the Project	<p>The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is ‘to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources’. The project’s objective has been stated as: ‘In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community’s livelihoods and ensure conservation and sustainable use of biodiversity’.</p> <p>The above project is being mainly funded by the <i>Agence France de Développement (AFD)</i> - i.e. the French Development Agency, with cofounding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project.</p>
Micro-Planning & Livelihood Development	<p>In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.</p> <p>A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati and <i>Rashtriya Gramin Vikas Nidhi (RGVN)</i> has been formed to implement (<i>interalia</i>) the micro-planning and livelihood development under the above project.</p> <p>The above consortium has been titled as ‘Consortium for Micro Planning and Enhancing Livelihood Opportunities’ - COMPELO in short.</p> <p>As per project guidelines, this micro-plan includes ‘various operations of village and forest development ... livelihood support of forest dependent members and keeping sustainable forest management as the broad objective’. It includes both forest development and livelihood development.</p>
Micro-Plan for the Madhupur Nepali JFMC	<p>This document gives the Micro-Plan for the Madhupur Forest Village JFMC, which is located in the eastern part of Dehingmukh R.F under Dibrugarh civil sub division in Dibrugarh District of Assam. The Dehingmukh R.F falls under the jurisdiction of Medela Beat office under Dibrugarh Range of Dibrugarh Forest division. The JFMC is the profile of the community is given in the next section.</p> <p>The present micro-plan has been prepared by members of the community, including both male and female members. This document has emerged as an outcome of a Participatory Rural Appraisal (PRA) process undertaken by the community and personnel of Indian Institute of Entrepreneurship (IIE) Guwahati on 3rd of May, 2017. The micro-plan has been compiled by IIE based on the project guidelines. The document has been discussed and finalized for adoption of Micro plan for Madhupur Nepali Forest JFMC.</p>

2. Village Socio-Economic Profile

Location	The Madhupur Nepali Forest Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Madhupur, a village located on the fringe of the Dehingmukh RF under Dibrugarh range of Dibrugarh Forest Division. The area covered by the above JFMC falls within the Moran Development Block of Dibrugarh District. Appendix-1 gives the Village Map.																						
Key Information	<p>The key information of the JFMC is furnished below.</p> <p style="text-align: center;">Table-A: Key Information of the JFMC</p> <table border="1" data-bbox="383 667 1284 1276"> <tr> <td>Name of the JFMC</td> <td>Madhupur Nepali</td> </tr> <tr> <td>Habitation</td> <td></td> </tr> <tr> <td>Name of Revenue Village</td> <td>-</td> </tr> <tr> <td>Name of the Gram Panchayat / VCDC</td> <td></td> </tr> <tr> <td>Revenue Circle</td> <td>Dibrugarh</td> </tr> <tr> <td>District</td> <td>Dibrugarh</td> </tr> <tr> <td>Forest Division</td> <td>Dibrugarh</td> </tr> <tr> <td>Forest Range</td> <td>Dibrugarh</td> </tr> <tr> <td>Forest Beat</td> <td>Medela</td> </tr> <tr> <td>Year Formed</td> <td>2006</td> </tr> <tr> <td>Description of Boundary of JFMC</td> <td>As below North: Dehingmukh R.F South: Netai Ali West : 12 Ghoria Mishing Gaon East: E & D Drain</td> </tr> </table> <p>Source: JFMC Records & Discussions during PRA Exercise in 5th of May 2017</p> <p>Additional details are given at Table-1 of Record-I. (Given at Annexure)</p>	Name of the JFMC	Madhupur Nepali	Habitation		Name of Revenue Village	-	Name of the Gram Panchayat / VCDC		Revenue Circle	Dibrugarh	District	Dibrugarh	Forest Division	Dibrugarh	Forest Range	Dibrugarh	Forest Beat	Medela	Year Formed	2006	Description of Boundary of JFMC	As below North: Dehingmukh R.F South: Netai Ali West : 12 Ghoria Mishing Gaon East: E & D Drain
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Brief Details of the Executive Committee & General Body	<p>The brief details of Executive Committee & General Body of the JFMC are contained in the table, which is given below.</p> <p style="text-align: center;">Table-B: Brief Details of Executive Committee & general Body</p> <table border="1" data-bbox="383 1563 1284 1792"> <tr> <td>Name of President</td> <td>Kishan Chettri</td> </tr> <tr> <td>Name of Secretary</td> <td>Haricharan Tati</td> </tr> <tr> <td>No. of Members in Executive Committee</td> <td>Male: 8 Female: 3</td> </tr> <tr> <td>No. of Members in the General Body</td> <td>122 (represented by the head of the households)</td> </tr> </table> <p>Source: JFMC Records</p>	Name of President	Kishan Chettri	Name of Secretary	Haricharan Tati	No. of Members in Executive Committee	Male: 8 Female: 3	No. of Members in the General Body	122 (represented by the head of the households)														
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<p>Households & Population Structure</p>	<p>The village has 122 households, of which 70 households are BPL (Below Poverty Line) households and remaining 52 households are APL (Above Poverty Line). The number of female headed households is 2.</p> <p>The total population is 666, of which 198 are males and 164 are female members which belong to OBC community followed by 149 males and 151 females which belongs to general caste and minor 2 males and 2 females belongs to SC community. Majority of the village population belongs to OBC community</p> <p>Table-2 of Record-I may be referred for further details in the above regard.</p> <p>From this, it is inferred that:</p> <p>(1) The average number of persons in a household is 5.4</p> <p>(2)The sex ratio is 908 females per 1000 males in the village.</p>
<p>Education & Skills Development</p>	<p>Over 80 % of the population is reported to be literate. Most of the community members have received school level education. On the other hand, relatively fewer households have college educated members.</p> <p>Livelihood skills are usually acquired under various settings – formal & informal. In the JFMC area, informal means for skills development is the traditional norm. People have traditional skills in the following areas:</p> <p>a) Livestock b) Fishing c) Cane and Bamboo</p> <p>Government has been active in promoting formal skills development programmes in the country as well as in the state. However, no such programmes have been carried out in the habitation or in nearby areas.</p>
<p>Soil</p>	<p>The soil type of the project area includes:</p> <ul style="list-style-type: none"> • Alluvial soil in low lying (clayey soils) and plain areas (loamy soils). <p>The soil is reported to be fertile and support various types of crops and different vegetation which include all leafy vegetables.</p>
<p>Water</p>	<p>The area is drained by river Brahmaputra which the JFMC is drowned with water, the adjoining area is Bogibil.</p>
<p>Climate: Temperature & Rainfall</p>	<p>The maximum temperature during the summer reaches 38 ° C. The minimum temperature during the winter is 2-3 ° C.</p> <p>The annual rainfall is about 2500-3000 mm. About two-thirds of the rainfall usually occurs during the rainy season (June-August). The village has high levels of humidity (over 90%) during the rainy months and low levels in the winter (Below 30%).</p>
<p>Forest & Biodiversity</p>	<p>The local forests have been broadly classified as Alluvial Plain Sal Forest and Eastern Terrain Sal Forests. The main tree species are Ghora Neem Koroi Ajar Bhelkor Dhekia Jharmoni Ban Neem,Hilikha,Amlakhi. The forests can yield a range of NTFP like spices, leafy vegetables, ferns, medicinal plants, bamboo, thatch, fodder, etc. Additional details in this regard are given at the ‘Forest Development Plan’.</p>

Land Use Pattern	<p>Appendix-2 gives the land-use pattern of the village. From the same, it is seen that the land-use in the village is as follows:</p> <p>Crop Land: Tree Cover: Habitation: Water Bodies: Barren/Fallow Land: Other:</p>
Land Holdings	<p>The type of households as per land-holding is given at Table-3 of Record-I. From the same, it is seen that:</p> <ul style="list-style-type: none"> • 13 % of the households are landless; • 67 % of the households are marginal farmers (less than 2 Ha); and <p>20 % of the households are small farmers (2-10 Ha).</p>
Livestock	<p>The total number of livestock in the village is 1405. The main types of livestock possessed by the households include:</p> <p>Cows: 1240 Goats: 1927 Ducks: 538 Poultry: 325</p> <p>Table-4 of Record-I may be referred to for the details in the above connection.</p>
Village Infrastructure & Communication Facilities	<p>In any community; the availability of basic infrastructure enables the development of sustainable livelihood options. The present condition of infrastructure in the village is not satisfactory. This is borne out by Table-5 of Record-I, which gives the present status of the village infrastructure.</p> <p>From the above table, the following have been noted with regard to village infrastructure:</p> <p>Physical Infrastructure: The habitation is not deprived of basic physical infrastructure like paved roads, electricity, water supply etc.</p> <p>Education & Health Facilities: There are minimal educational and health facilities. Public transport is available.</p> <p>Govt. Offices: The government offices (such as Police station, Gram Panchayat office, Revenue office, Bank etc.) are located within 10 to 13 Km, which gets amplified as the villagers do not have access to regular public transport from either the habitation or from nearby areas.</p> <p>Financial Inclusion: Facilities for financial inclusion like bank and post office are located at a considerable distance from the habitation. Hence, the community members do not have bank accounts or postal savings accounts.</p>
Agricultural Crops	<p>The details of the agricultural crops grown in the village is available at Table6 of Record-I.</p> <p>The above shows that the following are the main crops grown in the village.</p> <ol style="list-style-type: none"> a) Kharif Crops: Paddy-Sali; b) Rabi Crops: Seasonal Vegetables-Cauliflower, Cabbage, Potato, Mustard, Sesame, etc. <p>Therefore all the crops are depended on rainfall.</p>

Crop Production Profile	<p>Table-7 of Record-I may be referred to for the production and yield details of the crops grown in the village.</p> <p>The maximum numbers of households are involved in growing crops like 22. The production and yield of these crops is given as follows:</p> <ul style="list-style-type: none"> (a) Paddy: Production 2550 Quintal, 170 Quintal /ha in an area of 15ha of agricultural land (b) Oil seeds: Production 1260 quintal/ha in an area of 3ha of agricultural land (c) Vegetables: Production 5780 quintal/ha in an area of 5ha of agricultural land
Fodder Availability	<p>The matter of fodder availability in the village is dealt with at Table-8 of Record-I. The above shows that the main sources of fodder in the village are as follows:</p> <ul style="list-style-type: none"> a) Paddy Waste b) Household Kitchen Waste c) Surplus Vegetables d) Grazing Land e) Forest
Markets	<p>Table-9 of Record-I shows the location of the different markets from the village. The main markets used by the community are as follows:</p> <ul style="list-style-type: none"> (a) Grocery / PDS: Within the Village (b) Weekly / Bi-weekly Market: : Barbaruah at 8 km away (c) Major Market: Barbaruah at 8 km away
Water Resources	<p>The water resources are tabulated at Table-10 of Record-I. The main water resources with the water availability is as follows:</p> <ul style="list-style-type: none"> (a) River Water (Water Availability: Perennial / Seasonal) (b) Tube well (Water Availability: Perennial / Seasonal) (c) Stream (Water Availability: Perennial / Seasonal) (d) Ring Well (Water Availability: Perennial / Seasonal) (e) Tube Well (Water Availability: Perennial / Seasonal)
Energy Consumption	<p>Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below.</p> <ul style="list-style-type: none"> a) Fuel Wood- Households Depending: 75 Nos. complete throughout the year Source: Forest Plantation b) LPG- Households Depending : 47
Socio-economic status	<p>Social set-up: The village is predominantly inhabited by OBC and General community and tribal community is found to be very few. The society is not marked by deep social divisions. The observed position of women is satisfactory.</p> <p>Economic Condition: The economic position is / is not satisfactory. The main livelihood is Rice and Vegetable Cultivation. The household earn from a minimum of Rs. 36,000 to a maximum of Rs. 1, 00,000 per year.</p> <p>There is no large-scale migration of the youth and others for livelihoods. Additional details are available at the next section.</p>
Maps	<p>Appendix-1 gives the following maps, based on PRA exercise:</p> <ul style="list-style-type: none"> • Village Map • Village Social Map (with the names and particulars of members in PRA) • Village Resource Map

3. Livelihood Opportunity Analysis

<p>PRA Exercise</p>	<p>Team from IIE Guwahati carried out PRA exercise in Madhupur Nepali Forest village as follows:</p> <p>Date: 3rd of May, 2017 Location: Community Hall of Madhupur, Numbers Present: 34</p> <p>In Presence of: JFMC office bearers, Village Headman, community members, Forest Department personnel, etc.</p>
<p>Objective of PRA</p>	<p>The objective was to study the existing household conditions and obtain other primary data about the community for developing the livelihood options and the forest development plan.</p>
<p>Tools Used & Outcomes of the PRA</p>	<p>Different tools were used and outcomes obtained. These include:</p> <p>Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram</p> <p>Appendix-3 furnishes detailed information of the above.</p>
<p>Ranking</p>	<p>Ranking exercise has been done for the following:</p> <ul style="list-style-type: none"> • Livelihoods & Skills Development • Entry Point Activities (EPA) <p>Appendix-3 elaborates the above. From the same, it is stated that:</p> <p>Ranking of Livelihoods & Skills Development</p> <ol style="list-style-type: none"> 1. Shitalpati 2. Agarbatti Making 3. Weaving/Handloom in Modern Tools 4. Heavy Motor/JCB Operator 5. Bamboo Product Making

	Ranking of EPA		
	Village EPA as ranked	Details (Appendix-3 has additional particulars)	Probable source of funding/dept.
	1. Community Hall	Construction of incomplete Community Hall	APFBC/PWD/ PMGSY /MGNREGA/DRDA
	2 Boat	4 numbers	APFBC
	3. Community Nursery	1 No	APFBC
	4. Solar Fencing	Setting up of solar fencing up to 7 km	APFBC
Livelihood opportunities	<p>Livelihood Opportunities were identified as follows:</p> <ul style="list-style-type: none"> • Shitalpati • Agriculture & Horticulture • Livestock • Skills Development • Credit Facility <p>Additional discussion about the above has been given below.</p>		
Agriculture & Horticulture	<p>Table-12 under Record-2 may be seen in this connection for opportunities in the areas of agriculture and horticulture.</p> <p>The main constraints are: a) Low Production b) Storage & processing c) Marketing</p> <p>The opportunities are: a) Increase annual crop cycle b) Collection Unit, Packaging c) Institutional linkage for marketable outputs</p> <p>The suggested programme is:</p> <ul style="list-style-type: none"> • Agri-skill development programme. • Training on insecticides, pesticides, hybrid cultivation etc. • Irrigation • Credit facilities. 		
Livestock	<p>Table-13 furnishes additional information about opportunities for livestock rearing.</p> <p>The main constraints are: (a) Unable to buy fodder from market due to poor financial condition and less supply. (b) Trees fodder and crop residue are available only for 3-6 months. Green fodder is also not available for the whole year.</p>		

	<p>(c) No veterinary care clinic (d) Lack of knowledge about the proper rearing of live stock</p> <p>The opportunities are: (a) Higher income from livestock rearing. (b) A huge demand for livestock products like pork, chicken, eggs, etc in the nearby markets.</p> <p>The suggested programme is: (a) High Yielding Variety Pig Rearing (b) High Yielding Variety Poultry Rearing (c) Dairy (d) Fisheries</p>
NTFP	<p>The opportunities for NTFP are tabulated at Table-14 under Record-2</p> <p>The main constraints are: (a) Less availability of NWFP (b) No technical know-how (c) No processing units</p> <p>The opportunities is: (a) Availability of fertile fallow land (b) Generation of Livelihood from collection</p> <p>The suggested programme are: (a) Plantation of Food plants, Fodder, Etc (b) Medicinal Plants and aromatic plants (c) Herbal plants</p>
Specialized Skills	<p>For skills development, the opportunities are tabulated at Table-15 under Record-2</p> <p>The main constraints are: (a) Lack of product diversification (b) Lack of product quality</p> <p>The opportunities are: (a) Know-how of Traditional Skills, viz- sericulture, weaving (b) Availability of Work-Centre (c) Availability of Man-power</p> <p>The suggested programme is: (a) Training on Modern Tools and Equipment (b) Providing modern technology to the villagers (c) Skill Up gradation & Training on New Product Development and Product Diversification (d) Setting up a raw material bank (e) Providing a bulk buy arrangement of the finished product with institutional buyers.</p>
Credit Facility	<p>Table-16 under Record-2 discusses this aspect.</p> <p>The main constraints with the reasons are: (a) Financial exclusion (b) Involvement of unorganized money lender (c) Lack of Credit Appraisal</p>

	<p>The opportunities are: (a) Setting up modern financial institution (b) Adequate awareness. The suggested programmes are: (a) Setting up modern financial institution in the nearby areas. (b) Financial Inclusion Initiatives</p>
Strategic Interventions	<p>Summarizing the suggested programme at above as strategic interventions for the Livelihood Development Plan:</p> <ol style="list-style-type: none"> 1. Agriculture & Horticulture: Tractor operation training, Agri-skill development programme, Training on insecticides, pesticides, hybrid cultivation 2. Livestock: Cattle, Poultry 3. NWFP : Plantation of Food plants, Medicinal Plant etc 4. Specialized Skills: Training on Modern Tools and Equipment, Providing modern technology to the villagers, Skill Up gradation & Training on New Product Development and Product Diversification, Setting up a raw material bank, Market Linkage with institutional buyers. 5. Credit facility: Setting up modern financial institution in the nearby areas

4. Livelihood Development Plan

Income Generating Activities	<p>The main income generating activities as planned at the village are:</p> <p>Farm Sector :</p> <ol style="list-style-type: none"> 1. Dairy 2. Poultry 3. Agriculture 4. Horticulture <p>Non-Farm sector:</p> <ol style="list-style-type: none"> 1. Handloom/ Weaving 2. Heavy Motor Driving 3. Electrician <p>Source: Table-32 of Record-4</p>
SHG Activities	<p>SHGs of the village can plan the following activities:</p> <ol style="list-style-type: none"> 1. To generate entrepreneurial awareness 2. To organize and form Joint Liability Groups(JLG) 3. To involve the villagers in Livelihood Activities collectively. <p>Source: Table-33 of Record-4</p>
Exposure Trips	<p>The following exposure trips are planned:</p> <ol style="list-style-type: none"> 1. No Exposure Trips Planned Required. <p>Source: Table-34 of Record-4</p>
Summary of Action Plan	<p>As attached in next page.</p>

Convergence	<p>The planned initiatives may be converged with the following schemes of the Government of India:</p> <ul style="list-style-type: none"> (a) National Rural Employment Guarantee Scheme - for rural employment (b) Rashtriya Krishi Vikas Yojana (RKVY) - for agricultural and allied development (c) Rashtriya Krishi Sinchay Yojana (RKSY) - for irrigation, including watershed development (d) National Rural Livelihoods Mission (e) Skills Development Programme (f) Help from departments of education, Sericulture, Veterinary, Irrigation, Industrial and Fishery. (g) Other schemes for rural development and livelihoods as found appropriate. <p>The above convergence will yield synergies for the present plan, as well as help in sustaining the planned works in the post-project period.</p>
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5. Forest Development Plan

This Forest Development Plan has been prepared after a detailed PRA exercise at the village level as a part of the Micro-Plan of Madhupur Nepali Forest JFMC. The objective of this plan is to provide for the sustenance of the conservation and bio-diversity values, environmental functions and productive potential of the forests assigned to the JFMC; while meeting the consumption and livelihood needs of the community in a sustainable manner.

1. Status of the JFMC Forests

The micro-plan takes into consideration the following categories of the JFM Forests of the Madhupur Nepali Forest JFMC:

- (a) Forest areas assigned to the JFMC by the Forest Department; and
- (b) Areas planted / to be planted on community lands and other lands outside the notified forest area.

The status of both the above categories of JFMC forests is briefly discussed below.

1.1. Forests & Their Conditions

The details of the status of forest areas assigned to the JFMC have been furnished at Table 3.1 under Proforma-3 ('Forest Development Plan'), which has been attached as Annexure to this micro-plan. After considering other areas planted (or to be planted), the conditions of the forests of the Madhupur Nepali Forest JFMC have been summarized below.

Table-1: Conditions of the Forests of Madhupur Nepali Forest JFMC

Identification	Area of JFMC Forest (Ha)	Distance from Village (Km)	Condition of Forest [Good - Forest with crown density of 40% or more Else 'Degraded']	Frequency of Use by Community [2-3 m / 3-6 m / 6-9 m / Over 9 m]

(A) Assigned Forest				
RF / PRF Name: Dehingmukh	50 Ha(Plantation area) 11.25 Ha(Village Area)		Good Area: Degraded Area:	
(B) Other Planted Area				
			Good Area: Degraded Area:	
TOTAL			Good Area: Degraded Area:	

Source: Proforma-3, Table 3.1 / Discussions with Forest Department personnel & Community members

It is seen that the Madhupur Nepali Forest JFMC has 61.25 Ha under its forests, of which 50 Ha is 'Good' under plantation area and the rest 11.25 Ha falls under the village area.

1.2. Forest Soil Type

The forest of Madhupur Nepali Forest JFMC has acidic soil. Some salient points of the forest soil type have been given in the following table.

Table-2: Forest Soil Type in Madhupur Nepali Forest JFMC

Parameter	Status in Assigned Forests	Status in Other Planted Areas
Fertility Level	High	High
Soil Erosion Status	No Soil Erosion	No Soil Erosion
Presence of:		
(a) Silt	Nil	Nil
(b) Mud-flat	Nil	Nil
(c) Newly accreted land	Nil	Nil
(d) Sand dune	Nil	Nil

Source: Proforma-3, 'B. Forest Soil Type' / Discussions with Forest Department personnel & Community members

For the Madhupur Nepali Forest JFMC; the salient points of the forest soil type are summarized below:

- (a) The Red Soil is Fertile in Nature
- (b) No Soil Erosion in the recent past
- (c) No Presence Silt, Mud-flat, newly accreted land or Sand dune

1.3. Existing Composition of Flora

In the forests of the Madhupur Nepali JFMC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as Moist Deciduous Forests.

Table-3: Existing Composition of Flora in the Madhupur Nepali . JFMC

Parameter	Local Name(s)	Botanical Name(s)
Major Forest Species		
Associates	Ghora Neem	<i>Azadirachta indica</i>
	Koroi	<i>Albizia Procera</i>
	Ajar	<i>Lagrsroomia Specia</i>
	Bhelkor	<i>Trewia nudiflora</i>
Shrubs	Dhekia	<i>Ferns</i>
	Jharmoni Ban	<i>Atropa belladonna</i>
Medicinal Plants	Neem,Hilikha,Amlakhi	-
Produces	-	-
Others, if any	Bamboo	<i>Bambusoideae</i>

Source: Proforma-3, 'C. Composition of Existing Fauna & Flora' / Discussions with Forest Department personnel & Community members

2. Other Inputs for the Forest Development Plan

The following sub-sections discuss the other inputs for the Forest Development Plan of the Madhupur Nepali Forest JFMC.

2.1. Past Protection Measures of the JFMC

The measures taken by the Madhupur Nepali Forest JFMC for forest protection in the past have been discussed as follows.

- (a) Number of households involved: 75
- (b) Number of people involved: 150
- (c) Summary of the measures: Plantation of Major and Associates Species, Non Grazing of Cattle in Plantation Area, Protection
- (d) Any formal mechanism: Nil

[**Source:** Proforma-3, 'JFMC Status - viii + ix' / Discussions with Forest Department personnel & JFMC members]

2.2. Domestic Requirements of Forest Produce

The dependency of the local community on forest produce for household requirements is available in the table given at below.

Table-4 (A): Domestic Requirement of Forest Produce per Household of the Madhupur Nepali Forest JFMC

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty		
Firewood	Regularly	6-7 kg daily	Cutting Branches	Forest
Timber for House	-	-	-	-
Small timber for Implements	-	-	-	-
Pole / Bamboo	Frequently	2-3 Monthly	-	Market, Forest
Fodder from Forest	Not Available	-	-	-
NTFP	Not Available	-	-	-
Other	-	-	-	-

Source: Proforma-3, Table-3.2 / Discussions with Forest Department personnel & Community members

There are 75 households in the Madhupur Nepali Forest JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Madhupur Nepali Forest village for forest produce for own use is as follows:

Table-4 (B): Total Domestic Requirement of Forest Produce - All Households of the Madhupur Nepali Forest JFMC

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	More than 100000	Usage of Firewood Branches
Timber for House	30-40 large tree trunks	
Small Timber for Implements	50 small trunks, big branches	
Pole / Bamboo	500 bamboo	Fencing
Fodder from Forest	Not Available in large scale	-
NTFP	Not Available in large scale	-
Other	Not Available	-

Source: Table - 4(A) at above & Total Household Number from Community records

(*) = Approx. Qty. of Average Household Requirement (from Table-4 (A) x 75 Households

2.3. Collection & Marketing of Forest Produce by Villagers

Apart from use in the households, the community dependency on forest produces also includes the collection of such items for sale in local markets. The collection and marketing of forest produce by villagers of Madhupur Nepali Forest JFMC is given in the following table.

Table-5 (A): Collection & Marketing of Forest Produce by Villagers of the Madhupur Nepali Forest JFMC

Name of Forest Produce	Collection for Marketing			Location of Collection
	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	
Firewood	Autumn/winter	15	100-150 kg	Forest
Timber for House	Autumn/winter	-	-	-
Small timber for Implements	Autumn/winter	-	-	-
Bamboo	Throughout the Year	75	10-15 pieces	Plantation
Pole	-	-	-	-
Fodder from Forest	-	-	-	-
NTFP	-	-	-	-
Other	-	-	-	-

Source: Proforma-3, Table-3.3 / Discussions with Forest Department personnel & Community members

In the above connection, the following table gives additional pertinent information.

Table-5 (B): Collection & Marketing of Forest Produce - Additional Information [Madhupur Nepali Forest JFMC]

Name of Forest Produce	Surplus Marketed	How marketed	Average Income per HH from sale of Forest Produce
Firewood	1500-2000 kg	Sold in the Local Market	500-800
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	100-150 bamboo annually	-	500-1000
Pole	-	-	-
Fodder from Forest	-	-	-
NTFP	-	-	-
Other	-	-	-

Source: Proforma-3, Table-3.4 / Discussions with Forest Department personnel & Community members

2.4. Total Requirements of Forest Produce - Domestic Use & Marketing

The total requirements of forest produce by the community members of the Madhupur Nepali Forest JFMC have been summarized below - based on the information in the previous sub-sections.

Table-6: Total Requirements of Forest Produce by Villagers of the Madhupur Nepali Forest JFMC

Name of Forest Produce	Community Requirement (Kg per annum) From Table-4(B)	Surplus Marketed (Kg) From Table-5(B)	Total Requirements (Kg)
Firewood	1000	500	1500
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	150 pieces	150 pieces	300 pieces
Pole	-	-	-
Fodder from Forest	-	-	-
NTFP	-	-	-
Other	-	-	-

Source: Tables 4 (B) & 5 (B) of this Section, given at the previous pages

3. Forest Protection Issues

3.1. Protection Problems

The protection issues of the forests of Madhupur Nepali Forest JFMC have been summarized below.

Table-7: Protection Problems of the Madhupur Nepali Forest JFMC

Type of Problem	Relevant (Yes / No)	Significant (Yes / No)
Grazing - Local Animals	Yes	Yes
Grazing - Animals from Other Area	Yes	Yes
Illicit Felling of Timber	Yes	Yes
Smuggling of Timber	Yes	Yes
Accidental Fires	Yes	Yes
Encroachment of Forest Lands	Yes	Yes
Others	Yes	Yes

Source: Proforma-3, Table-3.5 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant forest protection issues facing the above JFMC are:

(a) Grazing of Local Animals

(b) Illegal Deforestation

3.2. Reasons for Degradation of the Forest

In the Madhupur Nepali Forest JFMC, the reasons for degradation of forest are as follows:

- (a) Illegal Deforestation
- (b) Grazing of Domestic animals

4. Components of the Forest Development Plan

The following sub-sections discuss the main components of the Forest Development Plan of Madhupur Nepali Forest JFMC; viz. the plans for Protection, Forest Improvement (Treatment), Nursery Development, Maintenance and Miscellaneous Operations.

4.1. Protection Plan

The Protection Plan given at below, discusses the measures for the protection of the forests of Madhupur Nepali Forest JFMC from the issues discussed earlier at Sub-section 3.1

Table-8: Protection Plan of the Madhupur Nepali Forest JFMC

Protection Work [to be filled from Table 3.7 of Proforma-3 as applicable]	Location in Forest Area	Quantification of the Measures [Length, Area, Size etc.]	Timing	Priority [High / Medium / Low]
Social Fencing	Boundary	Along the Demarcation of the Plantation Area	Grazing Season	High
Fire Protection	Within the Forest	-	Autumn-Winter	High

Source: Proforma-3, Table-3.7 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant protection measures planned to be undertaken in the Madhupur Nepali Forest JFMC (with high / medium priority) are as follows:

- (a) Social Fencing
- (b) Fire Protection

4.2. Types of Operations Proposed

The types of operations proposed for the treatment of degraded areas of the JFMC Forest of Madhupur Nepali Forest JFMC are given hereunder.

Table-9: Types of Operations Proposed in the Madhupur Nepali Forest JFMC

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Restoration of Degraded Forests	No	No	No	No
Protection to Cut Stumps of Trees	No	No	No	No
Watershed Treatment	No	No	No	No
Water Reservoirs	No	No	No	No
Grass & Silvi-pasture	No	No	No	No
Bamboo Plantation	No	No	No	No
Seed Sowing	Yes	Yes	June-July	
Root & Shoot Cutting & Plantation	Yes	Yes	June-July	
Cut Back & Coppice Treatment	No	No	No	No
Physical Fencing	Yes	Yes	November-February	NTFP 50 ha
Social Fencing	Yes	Yes	June-July	100 ha
Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Other Activities	No	No	No	No

Source: Proforma-3, Table-3.9 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the following are the treatment operations which have been proposed in the forest area of the Madhupur Nepali Forest JFMC:

- (a) Seed Sowing
- (b) Root & Shoot Cutting & Plantation
- (c) Physical Fencing
- (d) Social Fencing

4.3. Forest Improvement Plan - Advance Works & Creation

The pertinent details in the above connection have been tabulated as follows.

Table-10: Forest Improvement Planned in the Madhupur Nepali Forest JFMC

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (meter x meter)
Assisted Natural Regeneration (with plantation in gap)	-	-	-	-
Block Plantation	-	-	-	-

Plantation of Neem, Amla, Bahera (Medicinal Plants)	-	-	-	-
Enrichment Plantation	-	-	-	-
Direct Plantation	-	-	-	-
Other	-	-	-	-
TOTAL AREA (in Ha)	-	-	-	-

Source: Proforma-3, Table-3.8 / Discussions with Forest Department personnel & Community members

4.4. Forest Improvement – Action Plan

Action Plan for Block Plantation of Sal Mixed with Associates

Name of Plantation : NA
Plantation Period : NA
Plantation Area : NA
Spacing : NA
No. of Plants to be Raised : NA

Number Blocks : NA
Species : NA
Rates : NA

Financial Year	Activities	Amount
2016-17	NA	
2017-18*	NA	
2018-19*	NA	
	NA	
2019-20*	NA	
	NA	
2020-21*	NA	
	NA	
2021-22*	NA	
2022-13*	NA	
2023-24*	NA	
2024-25*	NA	
2025-26*	NA	

Action Plan for Block Plantation of Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Name of Plantation :
 Plantation Period :
 Plantation Area :
 Spacing :
 No. of Plants to be Raised :
 Number Blocks :
 Species :

Action Plan for Creation of Plantation		
Financial Year	Activities	Amount
2016-17	NA	
2017-18*	NA	
2018-19*	NA	
	NA	
2019-20*	NA	
	NA	
2020-21*	NA	
	NA	
2021-22*	NA	
2022-23*	NA	
2023-24*	NA	
2024-25*	NA	
2025-26*	NA	

Action Plan for Block Plantation of Non Timber Forest Produce

Name of Plantation : NA
 Plantation Period : NA

Plantation Area : NA
 Spacing : NA
 No. of Plants to be Raised : NA

Number Blocks : NA
 Species : NA

Financial Year	Activities	Amount
2016-17	NA	
2017-18*	NA	
2018-19*	NA	
	NA	
2019-20*	NA	
	NA	
2020-21*	NA	
	NA	
2021-22*	NA	
2022-13*	NA	
2023-24*	NA	
2024-25*	NA	
2025-26*	NA	

4.5. Nursery Development Plan

The Nursery Development Plan for the Madhupur Nepali Forest JFMC is not available.

4.6. Maintenance Plan - 10 Years

The maintenance plan for plantations raised in the Madhupur Nepali Forest FMC is not available.

4.7. Miscellaneous Operations Plan

The miscellaneous operations planned in the Madhupur Nepali Forest JFMC are given below.

Table-13): Miscellaneous Operations in the Madhupur Nepali Forest JFMC

Operation	Required (Yes / No)	Responsibility	Month / Year	Area (Ha)
No such planned	-	-	-	-

Source: Proforma-3, Table-3.13 / Discussions with Forest Department personnel & Community members

5. Expected Benefits

This sub-section furnishes the benefits expected from the forests protected by members of the Madhupur Nepali Forest JFMC, as well as the sharing mechanism for the usufruct benefits.

5.1. Expected Benefits Related to Wood & Grass

The above has been tabulated below for the Madhupur Nepali Forest JFMC. The benefits are expected from the forests protected by its members under this Forest Development Plan.

Table-14: Expected Benefits from Forests Protected by Members of Madhupur Nepali Forest JFMC

Item	Month	Year (Indicative)	Quantity
Firewood	-	-	-
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest Trees & Grass	-	-	-
NTFP	-	-	-
Wages	-	-	-
Other	-	-	-

Source: Proforma-3, Table-3.14 / Discussions with Forest Department personnel & Community members

5.2. Sharing Mechanisms

The sharing mechanism for the benefits is indicated below for members of the Madhupur Nepali Forest JFMC

Table-15: Sharing Mechanism for Madhupur Nepali Forest JFMC

Method	Items
To be shared equally	NTFP
To be freely collected by the members	Firewood,
Other Methods	Processing of NTFPs

Source: Proforma-3, Table-3.15 / Discussions with Forest Department personnel & Community members

List of Appendices

Appendix 1(A)

HOW TO REACH:

Guwahati to Dibrugarh distance, location, road map and direction

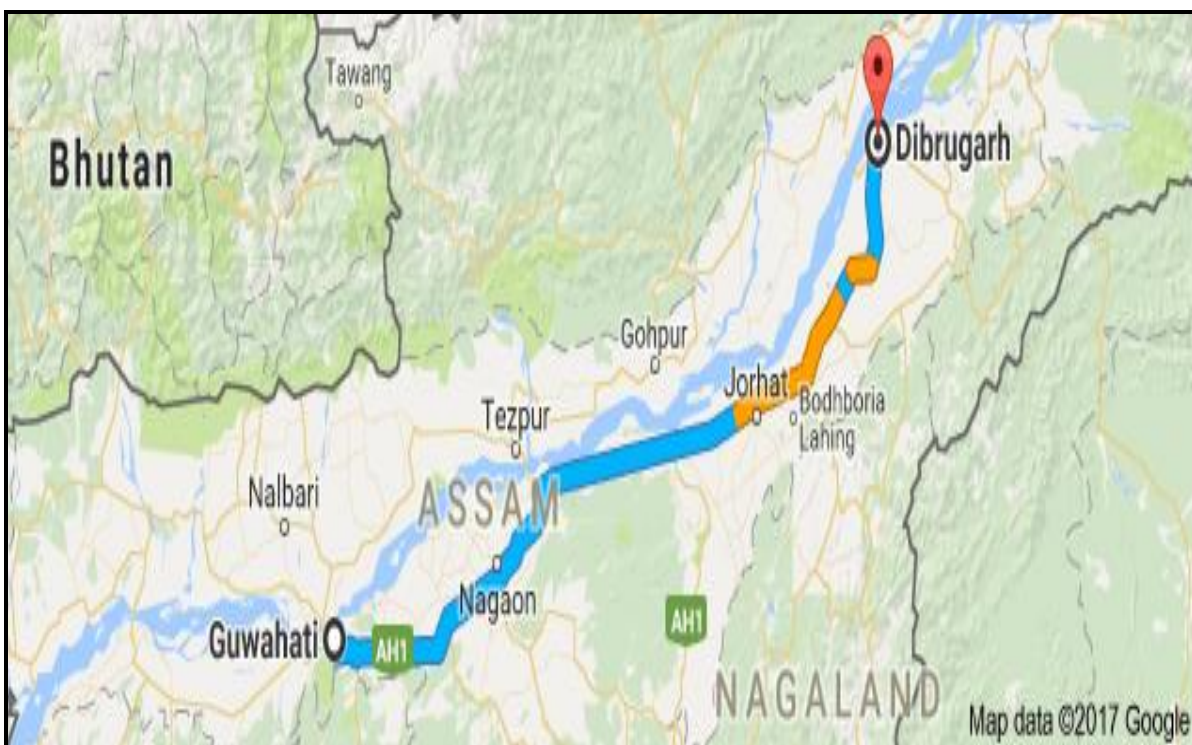
Guwahati is located in India at the longitude of 91.75 and latitude of 26.19. Dibrugarh is located in India at the longitude of 94.91 and latitude of 27.49

Distance between Guwahati and North Lakimpur

The total straight line distance between Guwahati and Dibrugarh is 462 KM (kilometers) and 321.39 meters. This is a straight line distance and so most of the time the actual travel distance between Guwahati and Dibrugarh may be higher or vary due to curvature of the road.

Guwahati to Dibrugarh road map

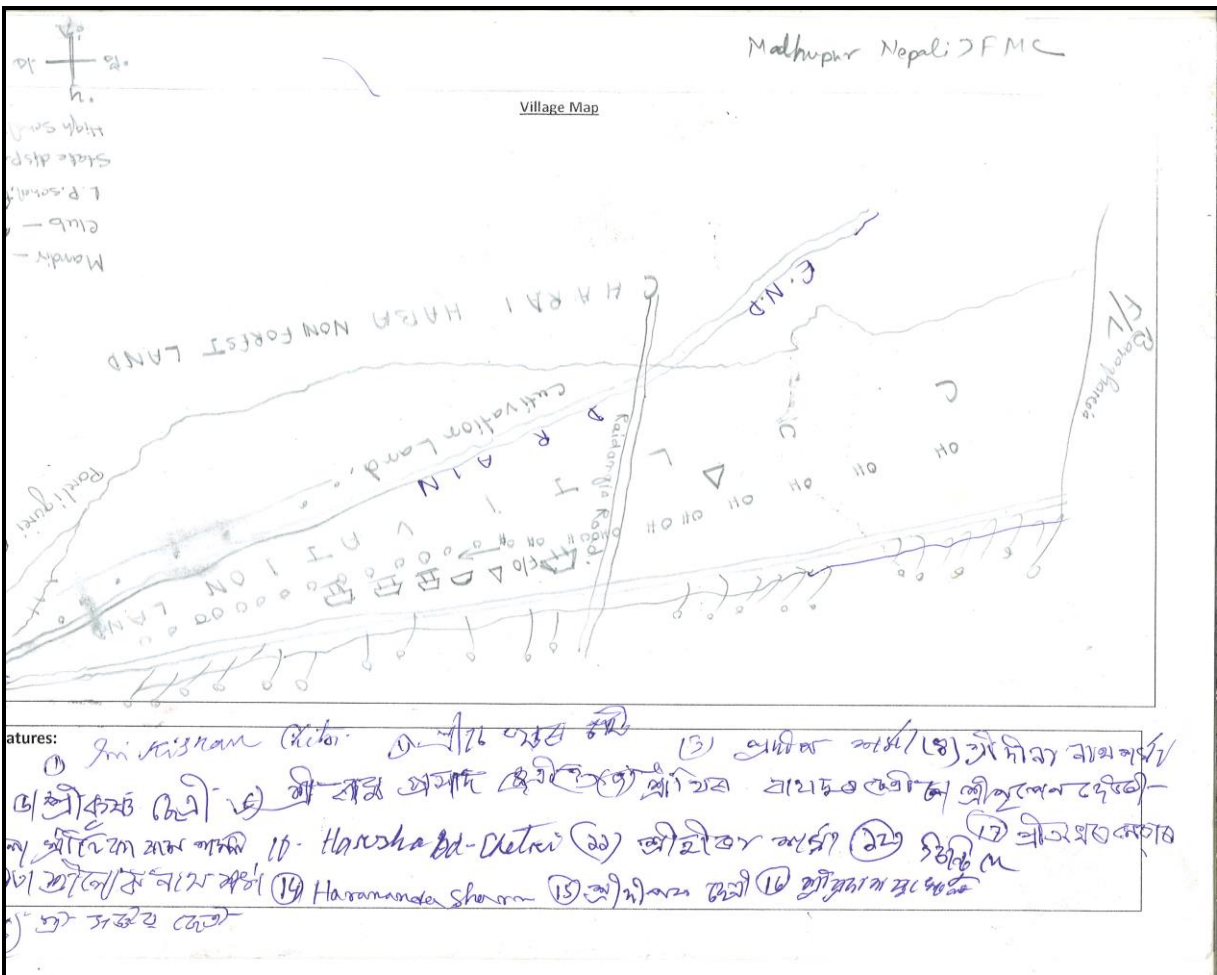
Guwahati is located nearly west side to Dibrugarh. The given west direction from Guwahati is only approximate. The given google map shows the direction in which the blue color line indicates road connectivity to Dibrugarh. In the travel map towards Dibrugarh you may find enroute hotels, tourist spots, picnic spots, petrol pumps and various religious places. The given google map is not comfortable to view all the places as per your expectation then to view street maps, local places see our detailed map here.



Appendix 1(B)

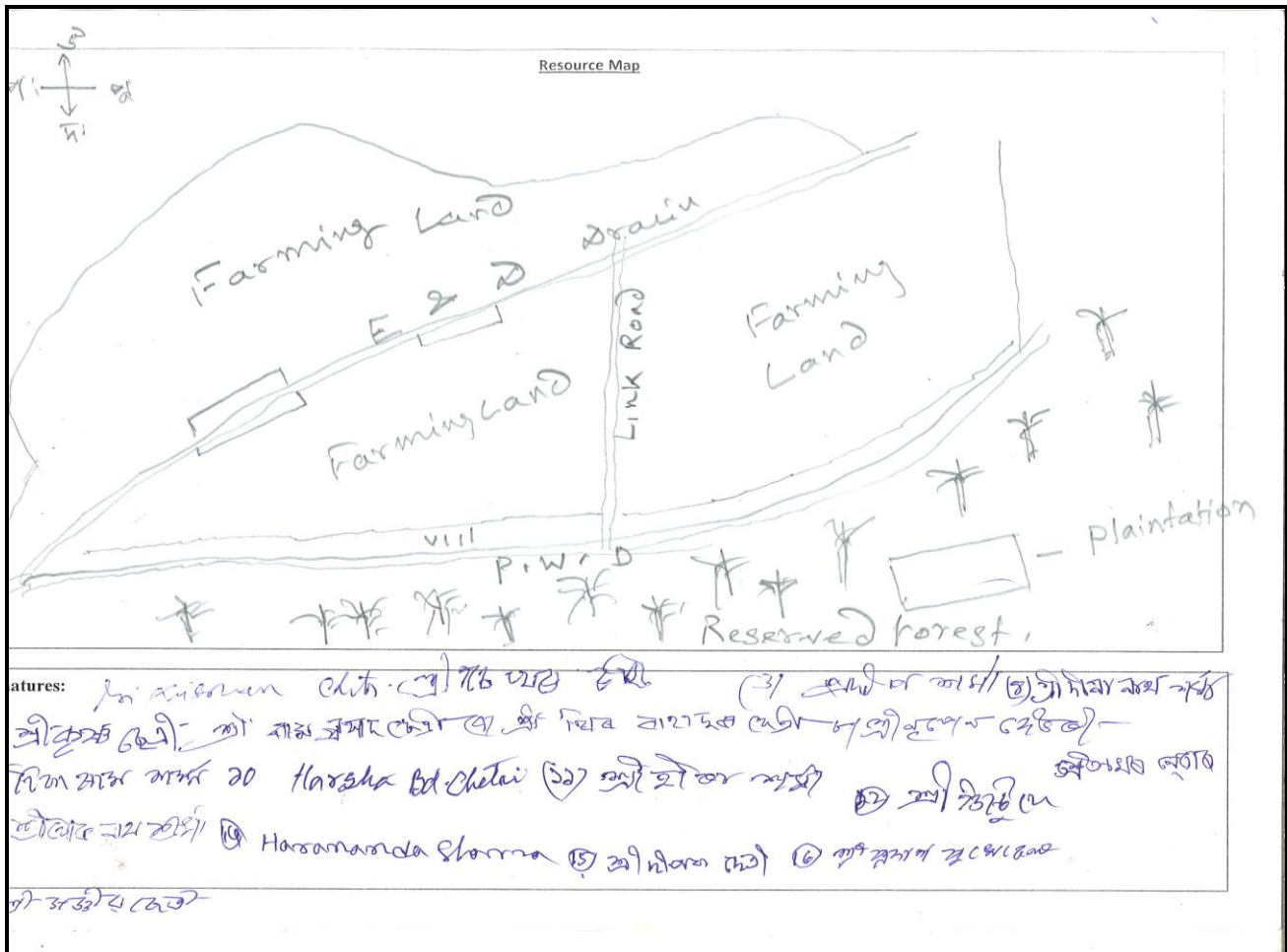
a) GIS Location map

b) Village map :



Village Map Being Drawn By the Villagers

d) Resource map



Resource Map Being Drawn By the Villagers

Appendix 2

Land Use Map/ Resource Map of the JFMC (GIS)

Appendix 3

PRA ACTIVITY

Location and Timing of Participatory Rural Appraisal:

Numbers of participants :	50
Time :	11:30 am, 3 rd May, 2017
Venue :	Community Hall (Madhupur Village)

Table – 3.1 Brief about the villages under MADHUPUR NEPALI JFMC

Sl. No.	Name of Village	Households (No.)	Population (No.)			Avg. HH size
			Total	Male	Female	
1.	Madhupur Nepali	122	666	349	317	5.45
2.	Total	122	666	349	317	5.45

Source: Field Survey

Different PRA tools used under the exercise of PRA technique are:

- Social Mapping
- Wealth Ranking
- Time Line Review
- Seasonality Analysis
- Chapatti diagram

3.1 Social Mapping:

Social mapping is used to visualize the socio-economic aspects of the Madhupur JFMC where the land holding patterns of the households, the numbers of schools and social infrastructure among households. Awareness among the villagers was carried out by the field teams; in order to infuse the self-consciousness for protection and enhancement of the forest areas. People from all the households of the village gathered for the PRA process, which was conducted in the community hall of the village. The PRA process was marked with enthusiasm and active participation from all people present.

The social and resource mapping process, was undertaken with the help of the villagers in identifying and marking the village. Villagers voluntarily came out to draw the maps. All the villagers spotted their households in the map. After the mapping process the team members collected the information about the pattern of their dwelling namely pucca, semi pucca, and IAY and thatch house.

Table 3.2: Information about the Madhupur Nepali Forest Village

Social Information	Details	Numbers
	Total population	666
	Male	349
	Female	317
	Total households	122
	Pucca House(Nos.)	22
	Semi-Pucca House(Nos.)	47
	IAY House(Nos.)	27
	Tin Roof Kutcha House (Nos.)	26
Landmarks	Bridges(Nos.)	1
	Stream(Nos.)	1
	River(Nos.)	
	PHE(Nos.)	1
	Community hall(Nos.)	1
	Community Wells(Nos.)	
	Play Ground cum Grazing filed (Nos.)	

Findings of social map:

- The participants of social mapping have identified all 122 households out of which 22 households have pucca house; 47 households have semi pucca house; 27 households have IAY house and 26 households have Kutcha house with Tin Roof. .
- Main sources of water for the villagers are the tube wells (personal/community). The water from hand-pumps is used for day to day purposes. Though the agricultural land of the village is rain-fed for farming purposes.
- The primary educations as well as high school facilities are available in the village which includes an L.P. School with Anganwadi Center, M.E and High school.
- The village has one community halls (one incomplete).
- All of the people belong to the Nepali community which is of other backward caste and some of schedule tribe caste.

Learnings:

- Electricity is available in 100 homes of the Madhupur Forest Village. There is LPG gas connections in 47 homes. Majority of households 75 still dependent on forest and use firewood for their cooking purposes. They used to go to the forest for collecting the firewood, which includes branches and snags. Occasionally, villagers cut down trees from the forest, for their personal use which is a concern for forest department as it is leading to degradation for the forest.
- The primary health centre is located inside the village, where as bank, college is located at Barbourah (13km); post office, LP school with Anganwadi center, ME school and High school are located inside the JFMC.

- There is one community hall in the village which is build by MLA fund which is used by the villagers, where various meetings are held. The community hall is open, which have store and tent house commodities. The availability of fodder for domestic animals depends on the resource available in the forest area and the capacity of the household who can rear the livestock's. Madhupur Village is fully dependent on crop residue, trees fodder, grasses, and green fodder. Field residues are materials left in an agricultural field after the crop has been harvested. These residues include stalks and stubble (stems), leaves, and seed pods.
- There are some grazing fields where villagers use for their cattle rearing. These fields are available for a maximum of six months. Seasonal grazing incorporates “grazing animals on a particular area allows the land that is not being grazed to rest and allow for new forage to grow.
- The villagers of the Madhupur JFMC have to go to Barbaruah, a distance covered with 13 km, for their weekly marketing activity. Domestic materials, utensils, bangles, cloths and stationeries are sold in different stalls.

3.2 Wealth Ranking:

Wealth ranking, or well-being ranking, involves community members identifying and analyzing the different wealth groups in a community. It enables evaluators to learn about the socioeconomic stratification of project beneficiaries and local people's definitions and indicators of wealth/well-being. Wealth ranking was done with the help of the following criteria:

- a) Land holding
- b) Occupation
- c) BPL Card Holding
- d) Dwelling Status

About 20 per cent of the households belong to middle class (about 2ha of agricultural land, Semi Pucca House, BPL Category, Occupation-Agriculture) and about 80 per cent (negligible agricultural land, Kutcha House, BPL Category, Occupation-Wage Earning) are categorized to be poor.

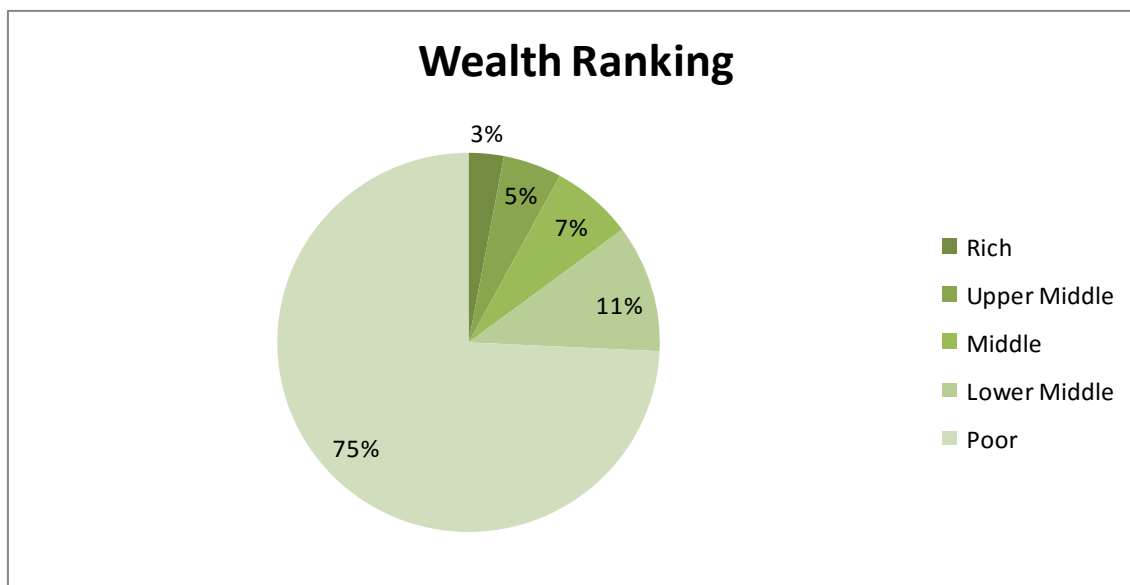


Figure 3.1: Wealth Ranking

3.3 Timeline Review

In order to know the past important cum historical events over time, the team has conducted the timeline analysis. The team members discussed about the local events to the village head, elderly persons and also to some young people to have an idea about how they dealt with those situations and what was the impact of those events on their lives as well as on the development of the village. Our time line illustrates the following events.

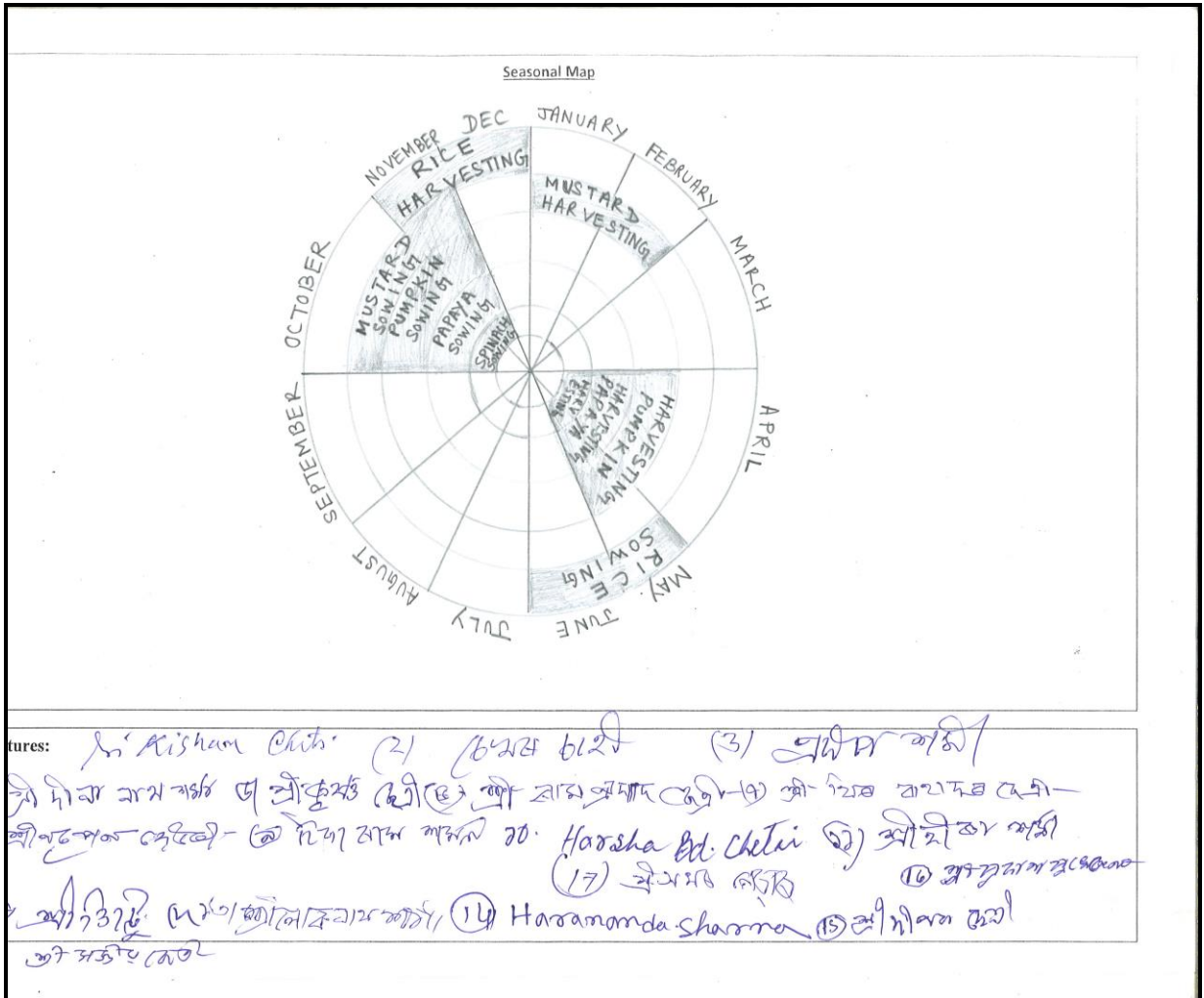
Table 3.3: Timeline review

Year	Event	Type
1951	Establishment of the Village	Construction
1962	First HSLC	Achievement
1968	First BA pass	Achievement
1988	Major Flood	Natural Calamity
1994	First Engineering Diploma	Achievement
1996	Strong cyclone	Natural Calamity
1998	Flood	Natural Calamity
2011	Men elephant conflict	Conflict

3.4 Seasonal Mapping of Livelihood Activities

Seasonal calendars drawn by the local people are very useful means of generating information about seasonal trends within the community and identifying periods of particular stress and vulnerability. Best undertaken in the context of a group discussion (to help verify the information obtained), seasonal calendars are often drawn on the ground with the relative trends depicted using stones or seeds, as in a preference-ranking matrix. In other instances, simple line graphs can be drawn to show seasonal increases or decreases. A whole series of seasonal variables can be included in one calendar to give an overview of the situation throughout the year. These variables can include: rainfall, crop sequences, labor demand, availability of paid employment, out-migration, incidence of human diseases, expenditure levels, and so on. Important periods, such as festivals, can also be shown. Seasonal mapping mainly covers the seasonal variation of crops. In seasonal mapping, we considered agricultural crops and the timing of three activities viz. sowing, cropping and harvesting criteria and collected the details throughout the year. From the seasonal mapping, it has been noticed that the main crops grown in the village are Sali rice, Mustard, etc. The FGD conducted revealed that other major livelihood options available in the JFMC are Livestock rearing (Piggery, poultry), shop-keeping, weaving, daily wage laborers, mason, tailoring, carpentry which are not seasonal in nature but is showed in the seasonal mapping.

Figure 3.4(A): Seasonal Map of Madhupur Nepali Forest JFMC



Source : PRA Exercise

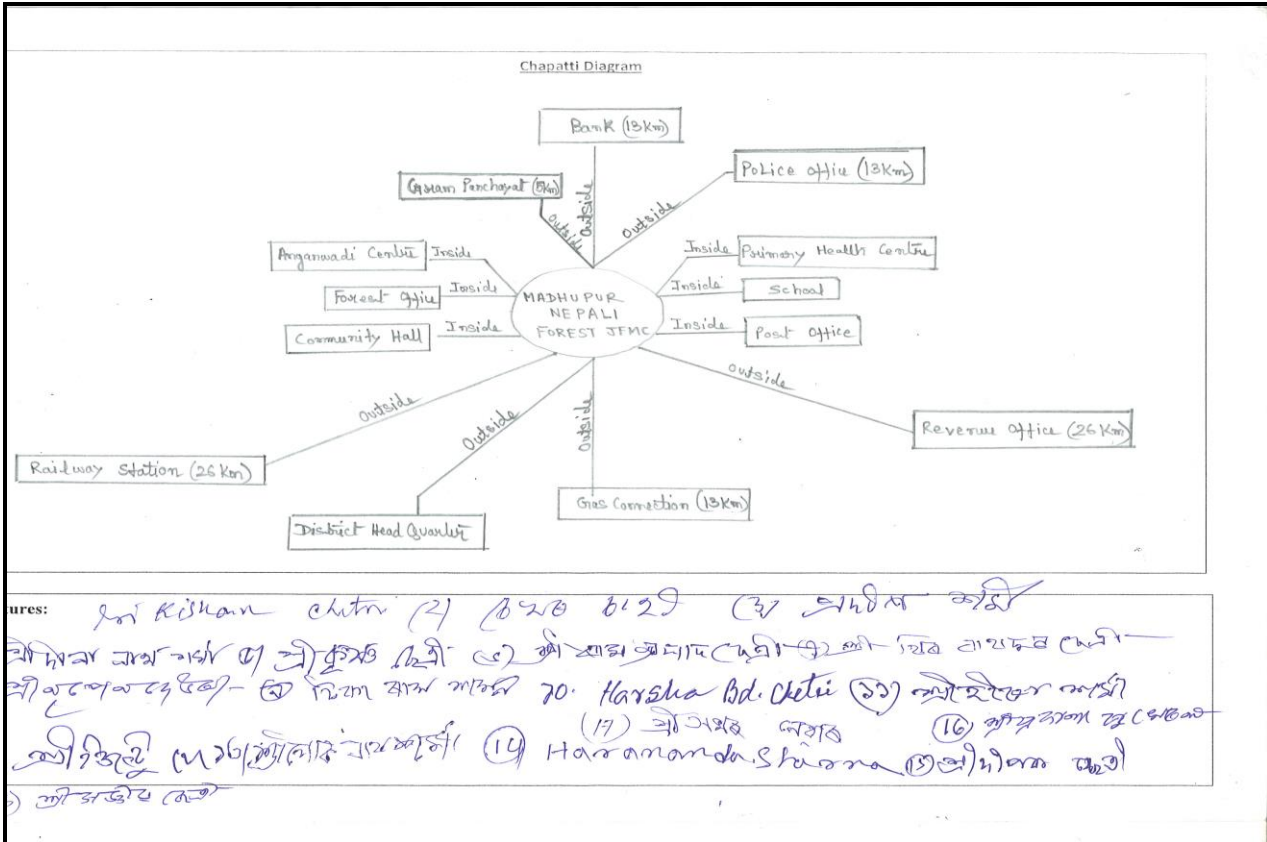
Table 3.4 Seasonal cropping pattern of the JFMC

Categories	Time of Activity			
		Sowing	Harvesting	Plucking
Farming	Sali	May-June	Nov-Dec	
	Pumpkin	Nov-Dec		Mar- Apr
	Spinach	Nov-Dec		Mar-Apr
	Papaya	Nov-Dec		Mar-Apr
	Mustard	Oct-Nov	Jan-Feb	
	Non- farming	Weaving	Throughout the year	
	Livestock Rearing			
	Daily Wage Earning			
	Shop-keeper Masonry			
	Electrician			
	Tailoring			

Learning's:

- Water availability is more during the period of May to August, so agricultural productivity becomes less in this period due to flood.

3.6 Chapatti Diagram



Source : PRA Exercise and Being drawn by JFMCmembers

3.8 Priority Ranking- Livelihood

Priority Ranking of Livelihood Activities

Livelihood Activities		Chitalpati	Agriculture	Bamboo	Weaving						Marks	Rank
		A	B	C	D	E	F	G	H	I		
Chitalpati	A	X	A	A	A						3	1
Agriculture	B	A	X	C	D						0	4
Bamboo	C	A	C	X	D						1	3
Weaving	D	A	D	D	X						2	2
	E											
	F											
	G											
	H											
	I											

Notes: 1) Anishan Cheta (2) Babu Cheta (3) Anishan Cheta
 4) Anishan Cheta (4) Anishan Cheta (5) Anishan Cheta (6) Anishan Cheta
 7) Anishan Cheta (8) Anishan Cheta (9) Anishan Cheta (10) Anishan Cheta
 11) Anishan Cheta (12) Anishan Cheta (13) Anishan Cheta (14) Anishan Cheta
 17) Anishan Cheta (18) Anishan Cheta (19) Anishan Cheta (20) Anishan Cheta

ANNEXURE 4

PHOTOGRAPHS -1



Completion of village map by the JFMC members



PRA Activity

PHOTOGRAPHS -3



Group photo with the Villagers

Annexure 5

LIST OF JFMC MEMBERS

Annexure 6 (Record I)

Table 1: Basic data of the JFMC:

Table 1: Basic data of the JFMC

Sl no	Name of the JFMC	Date Of Establishment	Name of Members in executive committee	Name of the President	Name of the secretary	Money in VDF	Contribution per family/per person	Social fencing used Yes/No	Remarks on special attainment	Grading % of success by RFO
	Madhupur Nepali Forest	2006	11	Kishan Chettri	Haricharan Tati	No	-	Yes	-	80%

Table 2: Village wise population data:

Table -2.1: Demographic status of the project villages

Sl. No.	Name of village	Households (No.)	OBC&ST			Sex ratio (per 1000 male)	Avg. HH size
			Total	Male	Female		
1	Madhupur Nepali	122	666	349	317	908	5.45
	Total	122	666	349	317	908	5.45

Source: - Field survey report.

Table -2.2: Age Profile of the population

Age Classification	B	>5 and <18	>18 and < 45	>45 and <60	>60
Male	44	78	31	16	5
Female	50	74	34	18	7

Table 3: Village wise farmer category on the basis of land holding*Table 3: Village wise farmer category on the basis of land holding*

Sl no	Name of the village	Type of famer according to land holding				
		Large farmer >10 ha.	small farmer 2-10 ha.	Marginal farmer (household) <2ha.	Land less (household)	Total
1	Madhupur Nepali	-		53	69	86

Table 4: Cattle Population*Table 4: Cattle Population of the JFMC*

Sl No	Name Of The Village	Village Wise No Of Cattles Or Type Of Animal								
		Cows	Buffaloes	Goat	Sheep	Bulls	Camels	Ducks	Poultry	Total
1	Madhupur Nepali	1240		1927	-	-	-	325	538	4030

Table 5: Village wise Infrastructure*Table 5 Showing village wise infrastructure*

Sl No	Infrastructure	Location	Distance from village
1.	Main Road	Within the Village	
	Electricity	Within the Village	
2.	Gas connection	Barbaruah	13km
3.	Transport	Within the Village	
4.	PHE	Within the Village	
5.	LP school	Within the Village	
6.	High school	Within the Village	
7.	Bank	Barbaruah	13km
8.	Phone	Dibrugarh	27km
	Anganawadi centre	Within the Village	
9.	VCDC		
10.	Revenue Office	Dibrugarh	27km
11.	Police station	Barbaruah	13km
12.	Forest Office	Within the Village	
13.	Post office	Within the Village	
14.	Bus facility	Within the Village	-
15.	Railway Station		
16.	District head quarter	Dibrugarh	27km

Table 6: Agricultural crops*Table 6: Agriculture Crops*

Type of Crop	Rain Fed		Irrigation	
	Name of the crop	Area (in ha.)	Name of the crop	Area (in hac)
Kharif	Sali Rice	15	-	-
Rabi	Mustard Oil	3	-	-
			-	-
Others	Vegetable,	5	-	-

Table 7: Crop production profile of Madhupur Nepali Forest JFMC:*Table 7 Crop production profile of MADHUPUR NEPALI FOREST JFMC*

Type of crop	Total Production (approx) in Metric Ton	No of household growing	Average production (Metric Ton / hac) approx	Area under crop (hac) approx
Paddy	2550	22	170	15
Oil seeds	1260	11		3
Vegetable	6	20	0.3	10

Table 8: Fodder Availability

Table 8: Fodder availability of the JFMC

Types	1-3 month	3-6 month	>6 month
Crop residue	-	-	-
Trees fodder	-	-	Available
Grasses	-	-	-
Green Fodder	-	-	-
Grazing in Forest	-	-	Available

Table 9: Location of market from the village

Table 9: Location of market from the village

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Within the Village	-
Weekly Market	Barbaruah	13 km
Major Market	Barbaruah	30 km
Forest Corporation Sale Depot.	NA	-
Tendu Patta PHAD	NA	-
Fish Market	Moran	30km
Medicinal Plant collection Centre	NA	-
Forest Corporation Medicinal plant Collection Centre	NA	-

Table 10: Water Resources Facility:*Table 10: showing the water resource facility available in the village*

Water source	Number	Availability of water	uses
Check dam	-	-	Irrigation, livestock rearing
Wetland	-	-	Irrigation, livestock rearing
Tube well	100	Adequacy	Drinking
River	1	Seasonal	All type of use
Community ring well	-	-	-

Table 11: Energy consumption:*Table 11: showing the Energy Consumption of the JFMC*

Type of Fuel	Number of household depending	Number of months dependent	Sources (local, village, forest, other sources)	Major/ Secondary
Fuel wood	75	12	Forest	Major
Kerosene stove	NA	-	-	Secondary
Gobar/Bio gas	NA	-	-	-
LPG	47	6 months	Agency	Secondary

Table 11 (A): Education Status

SI No	Categories	Percentage
1	Up to ME	36%
2	Class VIII to class X	5%
3	Class X to XII	40%
4	Graduate	7%
6	Illiterate	12%

Record II : LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture and Horticulture:

Table 12: showing the agricultural and horticultural status

	Reason	Opportunities	Programme
Low Production	<ul style="list-style-type: none"> • Traditional way of cultivation. • Only one crop undertaken annually (Sali) • Very negligible use of fertilizers and pesticides, insecticides. Lack of irrigation facilities. • Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. Non usages of high yielding seeds. 	<ul style="list-style-type: none"> • Application of proper and controlled pesticides and insecticides. • Introduction of new and advance technology. • Well-structured training programme. The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour. • Usage of high yielding seed programme. 	<ul style="list-style-type: none"> • Tractor operation training • Agri-skill development programme. • Training on insecticides, pesticides, hybrid cultivation
Storage and Processing	<ul style="list-style-type: none"> • Lack of common storing place • Lack of cold storage facility due to non-availability of electricity 	<ul style="list-style-type: none"> • Helpful in preserving unsold products for a longer period of time. • They can store their product and sell it when there is a higher demand. 	<ul style="list-style-type: none"> • Packaging • Transportation and distribution.
Marketing	<ul style="list-style-type: none"> • Lack of transporting facilities for carrying products • Less contact with the direct market; much dependency 	<ul style="list-style-type: none"> • Smooth transportation facility will help the farmers to carry their products to the nearby markets. 	<ul style="list-style-type: none"> • Buyers sellers meet

	<p>upon middle man</p> <ul style="list-style-type: none"> No knowledge on marketing know-how, dependence on traditional system of selling. 	<ul style="list-style-type: none"> Generate highest market price by removing middle men. More knowledge about the current market situation as well as the current value of their products. They can sell their products outside of the state, as the JFMC is located in Assam West Bengal border and Bhutan border is also not far from it. 	
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Table 13: Livestock

Table 13 Livestock

Constraints	Reasons	Opportunities	Programme
Less grazing land	<ul style="list-style-type: none"> Not Applicable 	-	-
Availability of fodder	<ul style="list-style-type: none"> Unable to buy fodder from market due to poor financial condition Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. 	<ul style="list-style-type: none"> Higher income from livestock rearing. The villagers can make it as an alternative livelihood opportunity if they have the easy access of livestock fodder. 	HYV Cattle Rearing
Veterinary care facility	<ul style="list-style-type: none"> No veterinary care clinic Lack of knowledge about the proper rearing of live stock 	<ul style="list-style-type: none"> Disease control Increases the life span of cattle. It will also help to aware the villagers and will encourage them for livestock rearing. 	Linkage with veterinary dept.
Production of milk	<ul style="list-style-type: none"> Less availability of fodder No scientific knowledge on cattle rearing to increase the milk production. 	<ul style="list-style-type: none"> Training on the milk production can enhance the skill of milk production. Availability of supplements like cattle “Milk Booster, Milk Plus” etc. can increase the production of milk in the area. 	HYV Cattle Rearing

Milk market	<ul style="list-style-type: none"> • Less contact with the direct market for milk • Unaware of the market demand of different milk made products. 	<ul style="list-style-type: none"> • A huge demanded market for milk is available as Dibrugarh district head quarter 	-
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Table 14: NWFP

Table 14 NWFP

Constraints	Reasons	Opportunities	Programme
Less collection	Less availability of NWFP	<ul style="list-style-type: none"> • Availability of fertile fallow land 	Plantation of Food plans, Medicinal Plant etc.
Unsustainable extraction	-	<ul style="list-style-type: none"> • Availability of fertile fallow land 	-
Low rates	-	-	-
Value addition	<ul style="list-style-type: none"> • No processing units • Non availability of required resources • No technical knowhow 	-	-

Table 15: Specialised skill

Table 15: Specialized Skills: Handloom

Constraints	Reasons	Opportunities	Programme
Raw Material Availability	<ul style="list-style-type: none"> • Non-Availability of Raw Materials within reachable location (market 7km away) • No Storage 	<ul style="list-style-type: none"> • Common place for setting a raw material storage 	<ul style="list-style-type: none"> • Setting up a raw material bank
Product quality	<ul style="list-style-type: none"> • Shortage of High Quality Materials • Use of Traditional machineries 	<ul style="list-style-type: none"> • Developing Quality Products for new market exploration. 	<ul style="list-style-type: none"> • Training on Modern Tools and Equipment. • Providing modern technology to the villagers

Marketing Potential	<ul style="list-style-type: none"> • No standardized market • No pricing policy • No linkage with the institutional buyers • No Product Diversification or New Product Development. 	<ul style="list-style-type: none"> • Exploring new markets with diversified products 	<ul style="list-style-type: none"> • Providing a bulk buy arrangement of the finished product with institutional buyers.
Credit Facilities	<ul style="list-style-type: none"> • No linkage with the banks or post office saving banks. • Unaware of the development schemes of banks and government 	<ul style="list-style-type: none"> • Financial assistance by the Govt. • Providing easy access to credit. 	<ul style="list-style-type: none"> • Microfinance, Term Loans, Working Capital Arrangement
Product Diversification	<ul style="list-style-type: none"> • No Product Diversification or New Product Development. • Lack of concept for product diversification. 	<ul style="list-style-type: none"> • Developing Demand Based Products, as per the needs of the modern day market. 	<ul style="list-style-type: none"> • Skill Up gradation & Training on New Product Development and Product Diversification

Table 16: Credit facility

Table 16 Credit facility

Constraints	Reason	Opportunities	Programme
Indebtness	<ul style="list-style-type: none"> • No Access to organized lending source 	<ul style="list-style-type: none"> • Setting up modern financial institution in the nearby areas. 	Financial inclusion initiative
Rate of interest	<ul style="list-style-type: none"> • Higher lending rates charged by the private money lender 	<ul style="list-style-type: none"> • Subsidized credit arrangement 	
Availability of loan	<ul style="list-style-type: none"> • Fear of risk taking • No knowledge of documentation 	<ul style="list-style-type: none"> • Start-ups entrepreneurial venture 	
Mortgage difficulty	<ul style="list-style-type: none"> • Unavailability of proper documentation of mortgaged property. 	<ul style="list-style-type: none"> • Proper awareness about documentation in the area 	